

REMARKS/ARGUMENTS

Claims 1 and 3-11 are active.

The Examiner has incorrectly examined the original claims and not the claims as amended during Article 34 of the International Stage of this now National Stage Application. Those Article 34 amendments were submitted when the application was filed. This appears to be so because the Official Action on page 2 indicates that Claims 1-11 are pending in the application, however, as apparent in the Article 34 amendments Claim 2 was canceled.

Some additional amendments are submitted to the claims here for consistency and antecedent basis, the claims submitted here start from the Article 34 Amendments.

No new matter is added.

As described on page 8 of the application referencing Figure 3, prior surface plasmon resonance measuring devices used beams of light that were split into two paths and then detected by two independent photodetectors. As described on page 10 of the application, such prior devices had serious limitations solved by the detection system of the present invention such as small size, cost, and to be used in the field rather than a laboratory. As described on page 19, referencing Figures 4 and 5, the claimed apparatus provides a single light source and a single photo detection with light splitting mirrors with details of light splitting mirrors described at page 22-23 (referencing Figures 8 and 9). Figure 17(a) and in particular Figure 17(b) (see pages 34-35) shows the proper separation and page 35 referencing Figure 18 shows the differential line angle stability was five-times better than a single mode apparatus (see also Table 1 on page 36 of the application).

The Examiner has rejected original Claims 1, 4-6 and 11 under 35 USC 102(b) in view of US2002/014093 to Naya and Claims 2-3 and 7-10 under 35 USC 103(a) in view of this same Naya publication, also in view of US4,925,271 to Taniura.

Naya does describe a plasmon resonance detecting apparatus including light sources, compound sample holding devices, optical system and sensors. However, the Naya apparatus is much like the apparatus described in the background section of the application relating to the prior art devices also referencing Figure 3. Specifically, Naya does not provide disclosure for a reference solution fixing portion in addition to a sample solution fixing portion of the sample setting device but only includes a sample solution fixing portion which, for example, was described on page 7, paragraph 0132 referencing Figure 1 of that Naya patent publication. Further, as admitted in the Action, in the rejection of Claims 2-3 and 7-10 as obvious in view of the Naya and Taniura publication, Naya does not describe a plurality of mirrors as defined in part (c) of Claim 1.

Furthermore, both the liquid sample 15 and the sensing medium 30 to be analyzed is disclosed see page 9, [0147] of Naya). However, unlike the claimed method, Naya does not disclose a reference solution-fixing portion in addition to a sample solution-fixing portion-see “a sample solution—fixing portion and a reference solution—fixing portion aligned on a thin film” in Claim 1 and in Claim 5: “a sample cell and a reference cell that are aligned on the line”. This arrangement is shown in Fig. 7 of the present application.

In the view of the above, a setting structure of a sample solution and a reference solution corresponding to Claim 1 (b) of the present application is different from that of the Naya apparatus.

Additionally, the claims include “a projection optical system including a plurality of mirrors for splitting light reflected from the sample solution-fixing portion and the reference solution-fixing portion into respective beams thereof and turning the directions of the beams to project the beams on a single line” see Claim 1 (c). The Naya apparatus only has a half mirror 70 for separating a light beam, and is different from the feature of Claim 1 (c).

To the obvious rejection, Taniura does describe splitting optical beams using mirrors (for example, see column 3, lines 21-36). It does not, however, describe or suggest including a reference solution-fixing portion of the sample-setting device as defined in part (b) of present Claim 1. In addition, Taniura relates to a completely different field of research, i.e., preparing recording materials. Nonetheless, the Examiner has taken the position as described on pages 6-7 of the application that it would have been simply obvious to include that device in Naya's apparatus because it is a known component of rejection optical systems.

Applicants disagree in that one would not have included the light splitting mirrors of Taniura into Naya because there is no reason to do so. Naya, unlike the Examiner's characterization, does not teach simultaneous detection of a test sample and a reference sample, therefore, there would no need to split beams as alleged. 2)

Further, while Taniura describes an optical beam splitter is disclosed, as described above, the claimed method includes not the optical beam splitter as shown in Taniura but a plurality of mirrors for splitting light reflected from the sample solution-fixing portion and the reference solution-fixing portion into respective beams thereof and turning the directions of the beams to project the beams on a single line.

Therefore, the claims are not anticipated by nor obvious in view of the cited references.

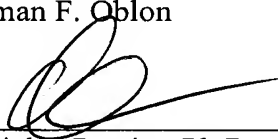
Withdrawal of the rejections is requested

Application No. 10/553,481
Reply to Office Action of October 22, 2008

A Notice of Allowance is also requested.

Respectfully submitted,

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